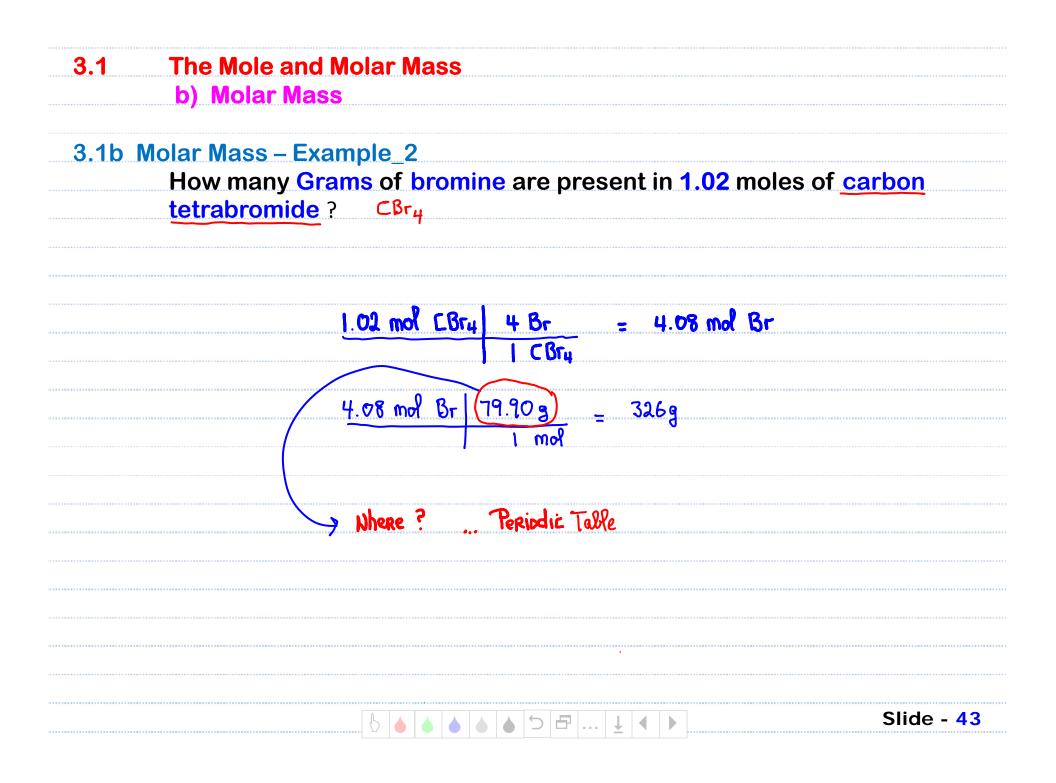
 2. No Class: Monday, May 26th, Memorial Day 3. First Lab: Tuesday, May 27th, ISB 155 4. Exam I Friday, May 30th – In Class 	3. First Lab: Tuesday, May 27 th , ISB 155
4. Exam I Friday, May 30 th – In Class	4. Exam I Friday, May 30 th – In Class

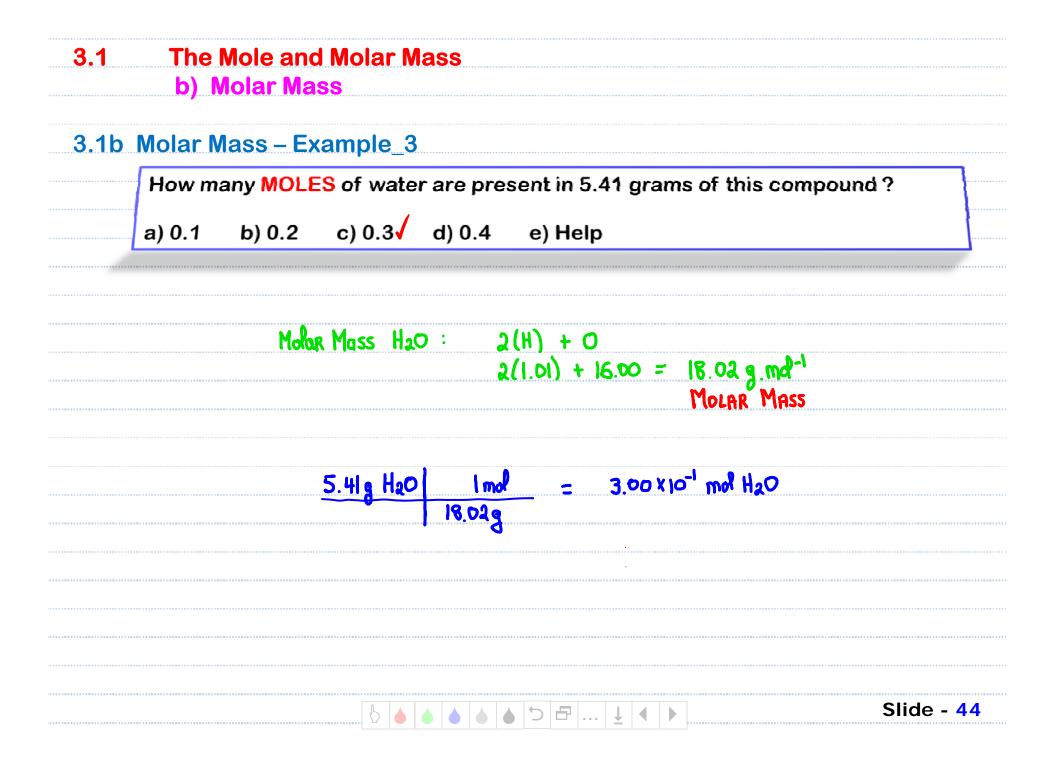
Quiz 3	Last Name:		
	Name:		
	a) Na ₂ S	Socium sulfide	
	b) Mg(NO ₃) ₂	Magnesium nitrate	
	c) Cu ₃ (PO ₄) ₂	Copper(11) phosphate	
	d) NH ₄ Br	<u>Annonium</u> Irromide	
	Formula:		
	e) Calcium hydroxide	<u>G</u> (OH) ₃	
	f) Aluminum oxide	<u>Ola</u> O3	
	g) Chromium(II) sulfide	<u> </u>	
	h) Potassium sulfite	K1.503	

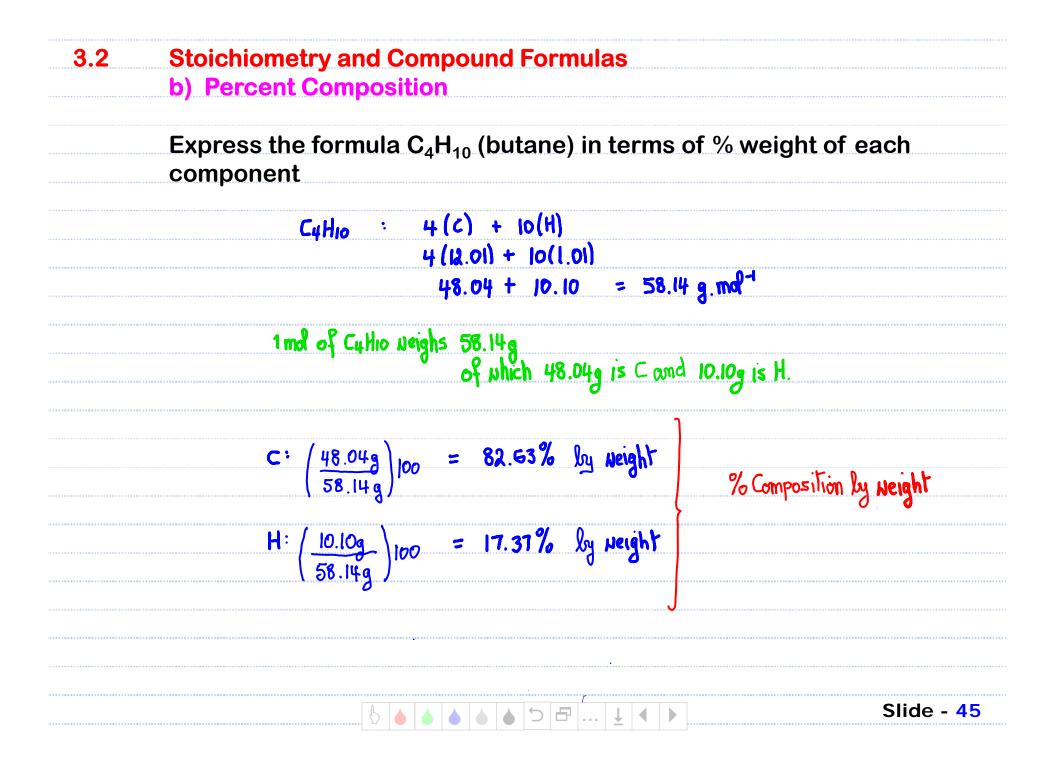
Slide - 40

5.1	The Mo b) Mola	le and Molar Mass r Mass	N = 6.023x10 ²³ mol ⁻¹
.1b M		s – Example_1a	
	a)	How many moles of C 6.21x10 ²² cesium ator	s are there in a sample that contains ms?
	b)	How many cesium ato 4.33 moles of Cs	oms are there in a sample that contains
0)	6.21 × 102	² atoms Cs 1 mol 6.023210 ²³ atoms	<u>=</u> 0.103 mol Cs
&)	4. <u>33 m</u>	of Cs 6.023 × 10 ²³ atoms 1 mol	= 2.61×10 ²⁴ atoms Cs

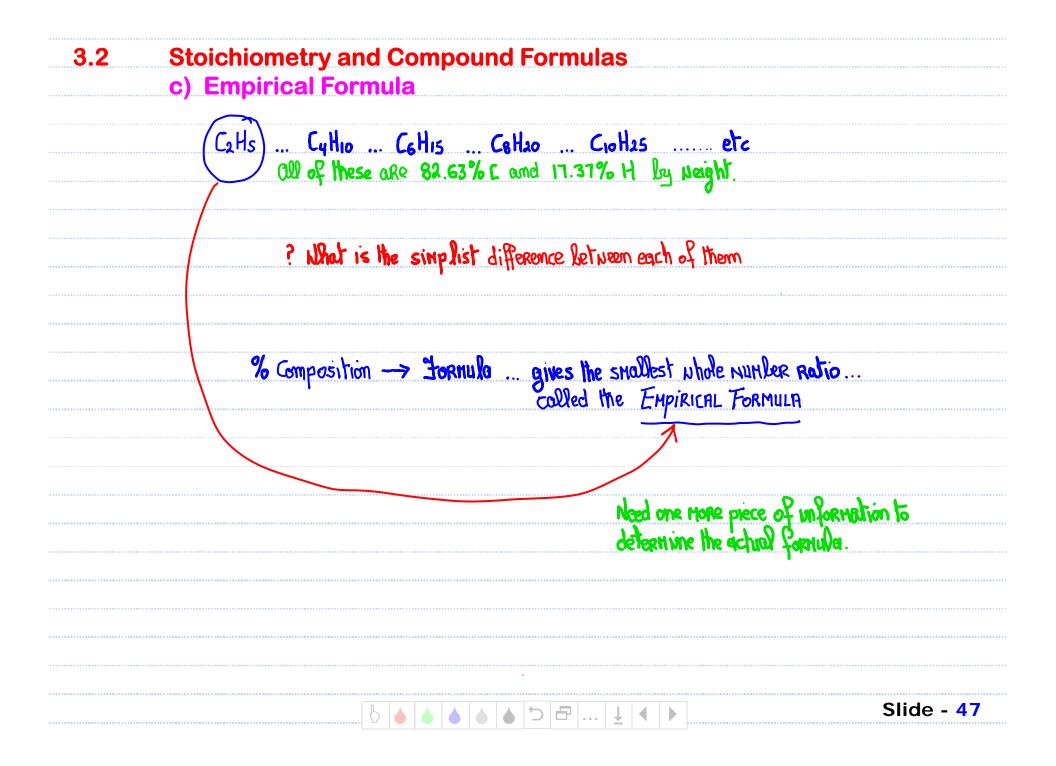
3.1	The Mole and Mola b) Molar Mass	r mass	N = 6.0)23x10 ²³ mol ⁻¹
3.1b M	Nolar Mass – Example	2_1b		
	a) How many	atoms of boron a oride ? BF ₃	are present i	n <mark>3.30</mark> moles of
	b) How many	moles of fluoring of boron trifluor	•	t in 3.09x10 ²²
٥)	3.30 mol BF3 1 B 1 BF3		23 × 10 ²³ atoms -	1.99 X 10 ²⁴ atoms B
	20		1 mol	
&)		1 mol =	0.0513 mol B1	3
			0 0512 mD RE	2E AUCHARDE
				3F = 0.154 mol F
				I BF3
				1 673







Butane is 82.63% C and 17		an we determine the
formula of Butane from thi	c (can we go back:)	1
a) Ossume a 100g sample.	<u>82.63g</u>	17.37g
b) Convert grans to moles.	<u>82.63g</u>	17.379
	12.01g.md ⁻¹	1.01g.mol-1
	6.88 mol	17.20 mol
c) Divide each by snallest mol value.	6.88 mol	17.20 mol
	6.88 mol	6.88 mol
	00.]	2.50
d) Convert to whole integer	23	5
	Calls	1. What is gone wrong?



3.2	Stoichiome	try and Com	pound Formu	as C: 12.01 H: 1.01
	d) Determi	ning Molecu	lar Formulas	O: 16.01
3.2d Mo	lecular Fo	rmula – Exam	nple 1	
				58% C, 9.63% H and 27.79% O.
				ass is determined to be 230.30
	g.mol ⁻¹ . Wh	nat is the mol	ecular formul	a of this insect repellant.
		Η	0	C6H11O2:
മി	62.58	9.63	27.79	6(12.01) + 11(1.01) + 2(16.00)
				$= 115.15 \text{ g.m} \text{ m} \text{ m}^{-1}$
<u>ይ</u>)	62.58/12.01	9.63/1.01	27.79/16.00	0
	5.21 mg	9.53 mol	1.74 mol	230 .30 _ 2
				115.15
c)	<u>5.21</u>	9.53	<u>1.74</u>	
	1.74	1.74	1.74	
				Empirical Formula: CoH1102
	2.99	<u>5.48</u>	1.00	
				Molecular Formula: C12H22O4
d) xa	5.98	10.96	2.00	•
	6	<u>)</u>	2	
	C	-6H1102		
		5 🔺		Slide - 48